



96700-658.ST25.txt
SEQUENCE LISTING

<110> Somlo, Stefan
Mochizuki, Toshio

<120> POLYCYSTIC KIDNEY DISEASE PKD2 GENE AND USES THEREOF

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<141> 2001-01-02

<150> 08/651,999
<151> 1996-05-23

<150> 09/385,752
<151> 1999-08-30

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<170> PatentIn version 3.3

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Gln Arg Gly Leu Glu Ile Glu Met Gln Arg Ile Arg Gln Ala Ala Ala
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Arg Asp Pro Pro Ala Gly Ala Ala Ala Ser Pro Ser Pro Pro Leu Ser
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Ser Cys Ser Arg Gln Ala Trp Ser Arg Asp Asn Pro Gly Glu Glu Glu
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Ala Glu Glu Glu Glu Glu Glu Val Glu Gly Glu Glu Gly Gly Met Val
 100 105 110

Val Glu Met Asp Val Glu Trp Arg Pro Gly Ser Arg Arg Ser Ala Ala
 115 120 125

Ser Ser Ala Val Ser Ser Val Gly Ala Arg Ser Arg Gly Leu Gly Gly
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Tyr His Gly Ala Gly His Pro Ser Gly Arg Arg Arg Arg Arg Glu Asp
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Gln Gly Pro Pro Cys Pro Ser Pro Val Gly Gly Gly Asp Pro Leu His
 165 170 175

Arg His Leu Pro Leu Glu Gly Gln Pro Pro Arg Val Ala Trp Ala Glu
 180 185 190

Arg Leu Val Arg Gly Leu Arg Gly Leu Trp Gly Thr Arg Leu Met Glu
 195 200 205

Glu Ser Ser Thr Asn Arg Glu Lys Tyr Leu Lys Ser Val Leu Arg Glu
 210 215 220

Leu Val Thr Tyr Leu Leu Phe Leu Ile Val Leu Cys Ile Leu Thr Tyr
 225 230 235 240

Gly Thr Glu Ala Asp Asn Arg Ser Phe Ile Phe Tyr Glu Asn Leu Leu
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245

255

Leu Gly Val Pro Arg Ile Arg Gln Leu Arg Val Arg Asn Gly Ser Cys
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Ser Ile Pro Gln Asp Leu Arg Asp Glu Ile Lys Glu Cys Tyr Asp Val
275 280 285

Tyr Glu Thr Ala Ala Gln Val Ala Ser Leu Lys Lys Asn Val Trp Leu
290 295 300

Asp Arg Gly Thr Arg Ala Thr Phe Ile Asp Phe Ser Val Tyr Asn Ala
305 310 315 320

Asn Ile Asn Leu Phe Cys Val Val Arg Leu Leu Val Glu Phe Pro Ala
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Arg Tyr Val Thr Thr Phe Asp Phe Phe Leu Ala Ala Cys Glu Ile Ile
355 360 365

Phe Cys Phe Phe Ile Phe Tyr Tyr Val Val Glu Glu Ile Leu Glu Xaa
370 375 380

Ile Arg Ile His Lys Leu His Tyr Phe Arg Xaa Ser Phe Trp Asn Cys
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Leu Asp Val Val Ile Val Val Leu Ser Val Val Ala Ile Gly Ile Asn
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Ile Tyr Arg Thr Ser Asn Val Glu Val Xaa Leu Leu Gln Phe Leu Xaa
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 580 585 590

Ala Glu Met Glu Leu Ser Asp Leu Ile Arg Lys Gly Tyr His Lys Ala
 595 600 605

Leu Val Lys Leu Lys Leu Lys Lys Asn Thr Val Asp Asp Ile Ser Glu
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Ser Leu Arg Gln Gly Gly Gly Lys Leu Asn Phe Asp Glu Leu Arg Gln
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Asp Leu Lys Gly Lys Gly His Thr Asp Ala Glu Ile Glu Ala Ile Phe
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Thr Lys Tyr Asp Gln Asp Gly Asp Gln Glu Leu Thr Glu His Glu His
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Gln Gln Met Arg Asp Asp Leu Glu Lys Glu Arg Glu Asp Leu Asp Leu
 675 680 685

Asp His Ser Ser Leu Pro Arg Pro Met Ser Ser Arg Ser Phe Pro Arg
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Ser Leu Asp Asp Ser Glu Glu Asp Asp Asp Glu Asp Ser Gly His Ser
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Ser Arg Arg Arg Gly Ser Ile Ser Ser Gly Val Ser Tyr Glu Glu Phe
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Gln Val Leu Val Arg Arg Val Asp Arg Met Glu His Ser Ile Gly Ser
 740 745 750

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Arg Ala Lys Leu Lys Arg Arg Glu Val Leu Gly Arg Leu Leu Asp Gly
770 775 780

Val Ala Glu Asp Glu Arg Leu Gly Arg Asp Ser Glu Ile His Arg Glu
785 790 795 800

Gln Met Glu Arg Leu Val Arg Glu Glu Leu Glu Arg Trp Glu Ser Asp
805 810 815

Asp Ala Ala Ser Gln Ile Ser His Gly Leu Gly Thr Pro Val Gly Leu
820 825 830

Asn Gly Gln Pro Arg Pro Arg Ser Ser Arg Pro Ser Ser Ser Gln Ser
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His Val Leu Leu Pro Tyr Val His Xaa Xaa Xaa Xaa Xaa Gly Asn Gln
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Ser Ser Pro Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu
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Gly Pro Pro Arg Leu Arg Gln Val Arg Leu Gln Glu Ala Leu Tyr Pro
 115 120 125

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 Ser Trp Gly Ser Cys Ala Val Tyr Asp Ser Gly Gly Tyr Val Gln Glu
 180 185 190
 Leu Gly Leu Ser Leu Glu Glu Ser Arg Asp Arg Leu Arg Phe Leu Gln
 195 200 205
 Leu His Asn Trp Leu Asp Asn Arg Ser Arg Ala Val Phe Leu Glu Leu
 210 215 220
 Thr Arg Tyr Ser Pro Ala Val Gly Leu His Ala Ala Val Thr Leu Arg
 225 230 235 240
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 Thr Ile Arg Gln Val Arg Thr Lys Lys Ser Glu Ile Ile Thr Leu Phe
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 Asn Lys Leu Asp Ser Glu Arg Trp Ile Asp Asp His Thr Arg Ala Val
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 Thr Val Val Lys Tyr Tyr Glu Met Leu Tyr Ile Phe Phe Ser Val Leu
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 Ile Phe Val Lys Glu Ile Val Trp Asn Phe Met Asp Leu Ile Val Gly
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 Ala Leu Ala Val Ala Ser Val Leu Ala Tyr Thr Ile Arg Gln Arg Thr
 225 230 235 240
 Thr Asn Arg Ala Met Glu Asp Phe Asn Ala Asn Asn Gly Asn Ser Tyr
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 325 330 335

Tyr Arg Ser Leu Met Ala Thr Phe Gln Thr Ala Leu Ala Gly Met Leu
 340 345 350

Gly Lys Leu Asp Val Thr Ser Ile Gln Pro Xaa Xaa Xaa Xaa Xaa Ile
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Lys Leu Leu Arg Gln Gly Tyr Thr Ile Arg Ile Leu Leu Trp Thr Phe
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Val Gln Ser Phe Lys Ala Leu Pro Tyr Val Cys Leu Leu Ile Ala Met
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Leu Asn Leu Phe Val Ala Val Ile Met Asp Asn Phe Glu Tyr Leu Thr
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Arg Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
210 215 220

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
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225 230 235 240

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile Leu Gly Pro His
260 265 270

His Leu Asp Xaa Glu Phe Val Arg Val Trp Ala Glu Tyr Asp Arg Ala
275 280 285

Ala Cys Gly Arg Ile His Tyr Thr Glu Met Tyr Glu Met Glu Arg Arg
290 295 300

Arg Ser Lys Glu Arg Lys His Leu Leu Ser Pro Asp Val Ser Arg Cys
305 310 315 320

Asn Ser Glu Glu Arg Gly Thr Gln Ala Asp Trp Glu Ser Pro Glu Arg
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Cys Ala Ala Val Gly Ala Ser Leu Ala Ala Pro Gly Gly Leu Cys Glu
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Gln Arg Gly Leu Glu Ile Glu Met Gln Arg Ile Arg Gln Ala Ala Ala
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Arg Asp Pro Pro Ala Gly Ala Ala Ala Ser Pro Ser Pro Pro Leu Ser
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Ser Cys Ser Arg Gln Ala Trp Ser Arg Asp Asn Pro Gly Phe Glu Ala
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Glu Glu Glu Glu Glu Glu Val Glu Gly Glu Glu Gly Gly Met Val Val
 100 105 110

Glu Met Asp Val Glu Trp Arg Pro Gly Ser Arg Arg Ser Ala Ala Ser
 115 120 125

Ser Ala Val Ser Ser Val Gly Ala Arg Ser Arg Gly Leu Gly Gly Tyr
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His Gly Ala Gly His Pro Ser Gly Arg Arg Arg Arg Arg Glu Asp Gln
 145 150 155 160

Gly Pro Pro Cys Pro Ser Pro Val Gly Gly Gly Asp Pro Leu His Arg
 165 170 175

His Leu Pro Leu Glu Gly Gln Pro Pro Arg Val Ala Trp Ala Glu Arg

180

185

190

Leu Val Arg Gly Leu Arg Gly Leu Trp Gly Thr Arg Leu Met Glu Glu
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 Ser Ser Thr Asn Arg Glu Lys Tyr Leu Lys Ser Val Leu Arg Glu Leu
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 Val Thr Tyr Leu Leu Phe Leu Ile Val Leu Cys Ile Leu Thr Tyr Gly
 225 230 235 240
 Met Met Ser Ser Asn Val Tyr Tyr Tyr Thr Arg Met Met Ser Gln Leu
 245 250 255
 Phe Leu Asp Thr Pro Val Ser Lys Thr Glu Lys Thr Asn Phe Lys Thr
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 Leu Ser Ser Met Glu Asp Phe Trp Lys Phe Thr Glu Gly Ser Leu Leu
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 Asp Gly Leu Tyr Trp Lys Met Gln Pro Ser Asn Gln Thr Glu Ala Asp
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 Asn Arg Ser Phe Ile Phe Tyr Glu Asn Leu Leu Leu Gly Val Pro Arg
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 325 330 335
 Leu Arg Asp Glu Ile Lys Glu Cys Tyr Asp Val Tyr Ser Val Ser Ser
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 370 375 380
 Thr Tyr Ser Gly Ala Gly Tyr Tyr Leu Asp Leu Ser Arg Thr Arg Glu
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 Glu Thr Ala Ala Gln Val Ala Ser Leu Lys Lys Asn Val Trp Leu Asp
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 Gly Gly Val Ile Pro Ser Trp Gln Phe Gln Pro Leu Lys Leu Ile Arg
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 Tyr Val Thr Thr Phe Asp Phe Phe Leu Ala Ala Cys Glu Ile Ile Phe
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 Cys Phe Phe Ile Phe Tyr Tyr Val Val Glu Glu Ile Leu Glu Ile Arg
 485 490 495
 Ile His Lys Leu His Tyr Phe Arg Ser Phe Trp Asn Cys Leu Asp Val
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 Val Ile Val Val Leu Ser Val Val Ala Ile Gly Ile Asn Ile Tyr Arg
 515 520 525
 Thr Ser Asn Val Glu Val Leu Leu Gln Phe Leu Glu Asp Gln Asn Thr
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 Phe Pro Asn Phe Glu His Leu Ala Tyr Trp Gln Ile Gln Phe Asn Asn
 545 550 555 560
 Ile Ala Ala Val Thr Val Phe Phe Val Trp Ile Lys Leu Phe Lys Phe
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 Cys Ala Lys Asp Leu Phe Gly Phe Ala Ile Met Phe Phe Ile Ile Phe
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 Asp Phe Ser Thr Phe Gln Glu Cys Ile Phe Thr Gln Phe Arg Ile Ile
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 Leu Gly Asp Ile Asn Phe Ala Glu Ile Glu Glu Ala Asn Arg Val Leu
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 Gly Pro Ile Tyr Phe Thr Thr Phe Val Phe Phe Met Phe Phe Ile Leu
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Ser Asp Leu Ala Gln Gln Lys Ala Glu Met Glu Leu Ser Asp Leu Ile
690 695 700

Arg Lys Gly Tyr His Lys Ala Leu Val Lys Leu Lys Leu Lys Lys Asn
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Thr Val Asp Asp Ile Ser Glu Ser Leu Arg Gln Gly Gly Gly Lys Leu
725 730 735

Asn Phe Asp Glu Leu Arg Gln Asp Leu Lys Gly Lys Gly His Thr Asp
740 745 750

Ala Glu Ile Glu Ala Ile Phe Thr Lys Tyr Asp Gln Asp Gly Asp Gln
755 760 765

Glu Leu Thr Glu His Glu His Gln Gln Met Arg Asp Asp Leu Glu Lys
770 775 780

Glu Arg Glu Asp Leu Asp Leu Asp His Ser Ser Leu Pro Arg Pro Met
785 790 795 800

Ser Ser Arg Ser Phe Pro Arg Ser Leu Asp Asp Ser Glu Glu Asp Asp
805 810 815

Asp Glu Asp Ser Gly His Ser Ser Arg Arg Arg Gly Ser Ile Ser Ser
820 825 830

Gly Val Ser Tyr Glu Glu Phe Gln Val Leu Val Arg Arg Val Asp Arg
835 840 845

Met Glu His Ser Ile Gly Ser Ile Val Ser Lys Ile Asp Ala Val Ile
850 855 860

Val Lys Leu Glu Ile Met Glu Arg Ala Lys Leu Lys Arg Arg Glu Val
865 870 875 880

Leu Gly Arg Leu Leu Asp Gly Val Ala Glu Asp Glu Arg Leu Gly Arg
885 890 895

Asp Ser Glu Ile His Arg Glu Gln Met Glu Arg Leu Val Arg Glu Glu
900 905 910

Leu Glu Arg Trp Glu Ser Asp Asp Ala Ala Ser Gln Ile Ser His Gly
915 920 925

Leu Gly Thr Pro Val Gly Leu Asn Gly Gln Pro Arg Pro Arg Ser Ser
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15

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acagctgcan aagtt

15